

IN THE CLAIMS

Claims 1-6 (canceled)

7. (currently amended) An aqueous A pickling agent for stainless steel, said pickling agent comprising:

water;

1.5 to 16 wt-% sulfuric acid or 2.0 to 30 wt-% phosphoric acid;

0.5 to 14 wt-% hydrogen fluoride; and

0.5 to 15.5 wt-% acid-soluble aromatic nitro compound,

wherein no iron (III) compound is supplied, and wherein merely in the starting phase an oxidizing agent can be supplied, which oxidizes iron (II) to form iron (III), wherein said pickling agent is free of wetting and emulsifying agents.

8. (currently amended) The pickling agent of claim 7, comprising comprising, in its application as bath pickle:

5.0 to 11 wt-% sulfuric acid or 8.0 to 20 wt-% phosphoric acid;

4.0 to 10 wt-% hydrogen fluoride; and

4.5 to 11 wt-% acid-soluble aromatic nitro compound.

9. (previously presented) The pickling agent of claim 7, additionally further comprising, in its application as spraying or brush pickle: 2.5 to 5.5 wt-% of a magnesium compound.

10. (currently amended) The pickling agent of claim 7, comprising comprising, in its application as spraying pickle:

9.5 to 15.5 wt-% sulfuric acid or 15.0 to 30.0 wt-% phosphoric acid;

4.0 to 11.0 wt-% hydrogen fluoride,

4.5 to 11.5 wt-% acid-soluble aromatic nitro compound; and

2.5 to 4.5 wt-% magnesium compound.

11. (currently amended) The pickling agent of claim 7, comprising comprising, in its application as brush pickle:

12.0 to 16.0 wt-% sulfuric acid or 18.0 to 30.0 wt-% phosphoric acid;

4.5 to 12.0 wt-% hydrogen fluoride;

2.5 to 9.5 wt-% acid-soluble aromatic nitro compound; and

3.0 to 5.5 wt-% magnesium compound.

12. (previously presented) The pickling agent as claimed in claim 7, wherein said acid-soluble aromatic nitro compound comprises m-nitrobenzene sulfonate and/or 3-nitrophthalate.

13. (new) A method comprising applying the pickling agent of claim 7 to a metal surface having corrosion thereon for a sufficient time and under conditions to remove the corrosion from said metal surface without removing metal from the metal surface.

14. (new) The method of claim 13, wherein said surface is stainless steel.

15. (new) The method of claim 14, wherein said metal surface is completely wetted by said pickling agent.

16. (new) The method of claim 13, wherein said pickling agent is applied to said metal surface by brushing, spraying or by immersion in a bath of said pickling agent.

17. (new) The method of claim 15, wherein said pickling agent is a thixotropic gel.

18. (new) The pickling agent of claim 7, further comprising 2.5 to 4.5 wt. % of a magnesium compound calculated as magnesium.

19. (new) A method of descaling a weld seam on a stainless steel surface comprising applying the pickling agent of claim 7 to a weld on a stainless steel substrate under conditions which descale said weld seam.